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A STUDY OF PREVOCATIONAL STUDENTS' VOCATIONAL CHOICES
VERSUS ACTUAL JOB ATTAINMENT
AND
SOCIAL ADJUSTMENT VERSUS EMPLOYABILITY
FOR EDUCABLE MENTALLY RETARDED

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Ralph Summers, Jr. M.

August, 1968

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APPROVED FOR THE GRADUATE FACULTY

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ACKNOWLEDGEMENTS

The writer wishes to express sincere thanks to:

Dr. Dohn A. Miller, Chairman, Dr. Colin D. Condit, and Dr. George C. Grossman, committee members, for their understanding, guidance, and valuable suggestions offered throughout the writing of this study.

Mr. Charles Jacobson and Mr. Clayton Knowles for their assistance and information for the viewpoints from their department.

My wife, Gloria, whose kind patience has helped make this study possible.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

I. THE PROBLEM

Purposes of the Study

This study had two purposes: One, to determine the discrepancy between the senior high school prevocational student's vocational aspirations and a more realistic level of vocational goal based on ability, experience, and achievement. It was desired specifically through counseling and work training experience to enable the student to come to a more realistic choice. Two, to determine the relationship between the student's social competency or personality adjustment and his employability; provide them with an opportunity to acquire a more adjusted personality; and to employ more appropriate skills in work experiences.

The study was an exploration of what effects a special education-prevocational program had upon employability; social adjustment or personality; vocational level of attainment; and self-realization of abilities.

Employability was determined from the Employer's Reports of the student's employers or supervisors in work experiences. Social competency or personality adjustment was determined according to the California Test of Personality. A vocational level of attainment was found by

matching the various experiences with the job descriptions outlined in the Dictionary of Occupational Titles Manual of the U. S. Department of Labor.

Background for the Study

A preliminary evaluation was given to the senior class a year previous to the sample group in this study. It was discovered that the students had some very unrealistic vocational aspirations in relation to what the staff considered within the range of the students' abilities and overall adjustment. By the end of that school year, the students began to change their vocational aspirations. They more nearly matched what the staff had predicted what each student would attain, accept, and match to their limitations and abilities. It was also suspected that their attitudes and overall social adjustment had changed as a result of their experiences in the program.

The staff felt, during the first year of operation, that the major reason why students had difficulty in maintaining or getting a satisfactory community laboratory experience or a job was due to their overall social adjustment and attitudes to work in general. The staff also maintained that the students were still lacking in sufficient knowledge and social attitudes needed to make a satisfactory adjustment in their work experiences.

Research was begun to find if persons from other work experience programs had tested and had realized the same phenomena. The studies gathered reflected that social and emotional problems, either in developing a satisfactory self-image or interacting with other people, were primary reasons for unsatisfactory employment or training.

It appeared from the first year's experience that a more effective means of evaluating was needed to test out the staff's feelings that the students, by participating in a prevocational work experience program, had benefited from more knowledge of their skills and had made major gains in social skills and adjustments. They felt that more concentration was needed in the area of social and attitude skills leading to employability.

The tests and evaluations reflected in this study were utilized to test the effectiveness of this concentration of instruction, counseling, and the progress of the students.

Method

More concentration on social instead of academic skills became the guide for instruction of the 1968 senior class. (See Figure I.) Much more time was spent in counseling both individuals and the entire group in and out of the classroom. The vocational rehabilitation specialist and the prevocational advisor, either as a team or individually, spent more

FIGURE I

PROGRESSION OF THE PREVOCATIONAL PLAN FOR THE INDIVIDUAL CLIENTS

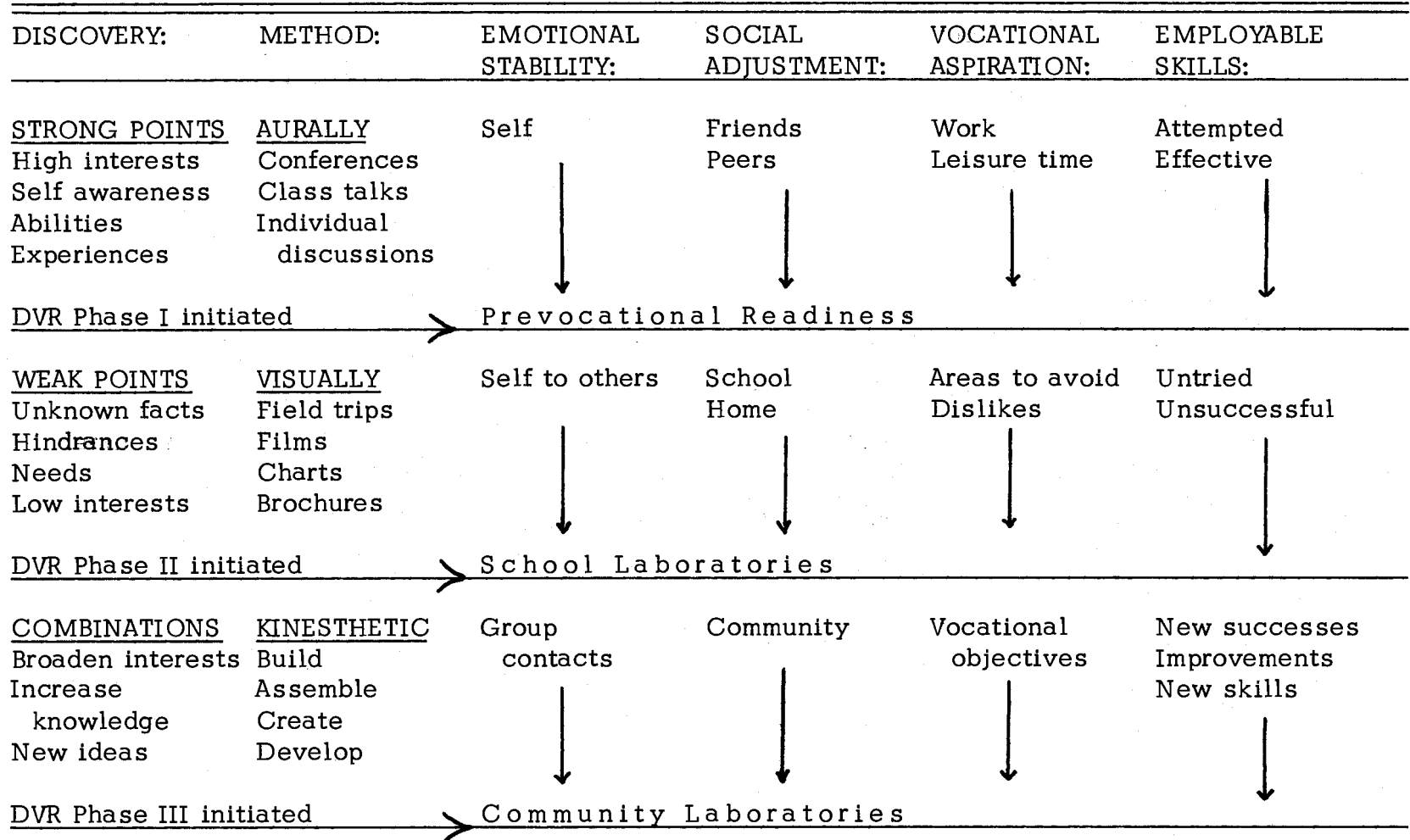


FIGURE I (continued)

DISCOVERY:	METHOD:	EMOTIONAL STABILITY:	SOCIAL ADJUSTMENT:	VOCATIONAL ASPIRATION:	EMPLOYABLE SKILLS:
Maximize abilities Compensate for weaknesses	Utilize all senses	↓	↓	↓	↓
DVR Phase IV completed	→ Employable, hired, or vocational school				

time with the seniors in counseling situations in school and while the student was in his work experience training. Less time was being spent in instructing job skills while on the job than the year before and more in customer relations, manners, conversing with fellow employees, friends, and the boss, and stressing reasons for increased communication as well as closer interpersonal relationships.

About four hours per senior per week was set aside for this purpose. More time than this was spent in this relationship to the group each week in the classroom. Approximately half of the in-class instruction was utilized in discussions not specifically directed to academic progress. This was in direct contrast to the distribution of time spent with the sophomores and juniors in the prevocational program where academic skills were still of paramount importance.

Much of the academic program for the seniors was job and student oriented. Basic classroom materials and individualized brochures, magazines, and technical manuals were collected for and by each student.

A prediction of a student's level of achievement was established as one of the tools to guide the student. The staff utilized several sources from which to predict a student's level of occupation gained at the end of the school year. Each student was given the General Aptitude Test Battery, Prognostic Test of Mechanical Abilities, Survey of Working Speed and Accuracy, Interests and Activities, The Wechsler Adult

Intelligence Scale, and The California Test of Personality. With the information obtained from these tests and information contained in their files, job predictability was determined. The final decision was made by the prevocational advisor with the supporting advice of the rest of the consulting staff. The consulting staff generally consisted of the vocational rehabilitation specialist, medical consultant, psychologist, social worker, prevocational advisor, and the director of special education.

Description of the Auburn and Federal Way Programs

The Auburn prevocational program for the 1967-1968 school year was a cooperative effort of the public school districts and the Department of Vocational Rehabilitation (15:1). Federal Way and Auburn operated independently of each other and maintained their own staff and personnel. They did, however, operate similar cooperative plans with the Department of Vocational Rehabilitation. The joint effort was to educate, train, and offer services to the special education students of the two schools.

The seniors of this program were generally enrolled in a program of instruction made of a block of three hours of academic time and a block of three hours of work experience time. It was the policy of the programs to enable the senior to integrate into the regular program for at least one a day in basically non-academic classes such as home economics, arts and crafts, physical education, shop, etc., if they could

benefit from the instruction. Some were enrolled in other regular academic classes, depending upon individual functions and needs. Otherwise, they remained in the prevocational classroom for instruction of required subject matter according to their individual needs and requirement of the school. During the work experience time, they were engaged in job training and social experiences leading to employability either on the school grounds or in the community in various businesses. The school work experiences were called school laboratories and the experiences off the school grounds were called community laboratories. The students received an hour of credit for each hour spent in the laboratory placements. This enabled them to receive three work credits and three academic credits each semester. These credits counted toward graduation requirements. They received the same type of diploma as the regular high school student upon graduation.

The three main areas focused upon in developing a program of instruction were also the areas tested. The goals and methods were serving essentially the same purpose. The advisors were emphasizing student awareness of his self, his relationship to others, and development of prevocational skills. Since the advisor was instructing or advising them in the classroom and in their community laboratory placements, it was possible to assure carry-over of instruction from one to the other. The advisor was able to make observations and assess

whether or not the student preparations in the classroom were put to intended use in the associations with adults and situations in the community.

The following are some of the main stress areas interpolated into the curriculum. Many of the same problems were noted in prior research of other work experience programs. Lack of sufficient progress and attitude in any one of the areas could have meant the reluctance on the part of the advisor in placing the student outside of the school setting.

Cosmetic, grooming, and clothing problems were encountered quite often. The gaining of self-confidence and proper manners to work with adults and adapting to the rules of their world was a continuing day-to-day process.

Money management proved a problem for many of the students. The student was receiving academic credit for his participation in the work experience and only when he was proving of some benefit to the supervisor was pay expected. Several of the students were earning money through the Youth Opportunity Corps program in the school. Many of the work experiences did turn into paying jobs both during school and after school hours. Gifts, discounts on merchandise, and special privileges were often advanced to them from their supervisors.

The checklists on the Employer's Report and the Classroom Report were used as one of the guides in presenting materials and ideas to the students in the classroom. In this manner many of the things being expected of them and checked could be brought to their attention. They could then assess to some extent their own progress.

Proper use of leisure time and possible unemployment periods were often discussed and explored. This portion of the instruction was intermixed with those of developing students' sense of economic and physical independence. Some of the students became self-sufficient to the point of emancipating themselves from their parents' home while in the program. One male student acquired a self-supporting job and got married while still a client in the program. Some females were making successful preparations for marriage also. Some married and left the program before or soon after graduation.

Most of the materials presented as a part of the curriculum were either of recent nature, related to what was happening that year, or was expected to develop when the students would still be in their twenties. Historical events and prediction of events beyond this bracket of time proved of little interest or value to them at this state of their education.

Prevocational class enrollment was limited by agreement with the Department of Vocational Rehabilitation to twelve students. Most of the 1968 senior class students were grouped together in a single

class both in Federal Way and Auburn. This was done for the convenience of group instruction when needed.

The prevocational advisor taught academic subject matter and conducted school-oriented activities for a half day. The advisor then supervised them on their community laboratory placements during the other half day. This was also the time during the school day that the advisor held conferences, made student placements, and conducted his other school duties.

When the advisor was not in immediate charge of a student during the community or school laboratory time, the student's supervisor took responsibility. The student's supervisor in this case may have been an employer, custodian, head waitress, etc.

The prevocational program was composed of four advisors and about forty-eight to fifty students, grades ten through twelve. The Federal Way prevocational program consisted of three advisors and approximately thirty-six students. The exact number of students changed throughout the year due to dropouts, students moving out of the districts, and others being admitted into the program.

The Sample Group

A sample group of Auburn senior prevocational students used in this study was increased to seventeen by an agreement with the prevocational department of Federal Way to include their seniors in the study.

Originally, there were twenty-two seniors being evaluated and tested; however, results of only seventeen were completed and used for this study. The loss in number of students was attributed to dropouts from the program or incomplete testing.

The addition of the Federal Way students seemed reasonable in that both programs are essentially the same in regard to the following:

(1) Federal Way was one of the seven participants in cooperative programs in the state between public schools and the Department of Vocational Rehabilitation, (2) the high school population was essentially the same, (3) the two school districts were adjacent, (4) the cooperative agreements or contracts, goals, method of instruction, training facilities, and philosophies were similar, (5) the cities were alike in that they were both urban communities, (6) the opportunities for work training were much the same, and (7) the staff and personnel were selected according to the standards established by the Department of Vocational Rehabilitation.

The initial testing of all the subjects was completed during the first semester of the senior year. This provided a period of seven months between beginning and end of the year evaluations and tests.

The sample group of seventeen seniors were teenagers or had reached their twentieth birthday by the end of the school year. There were a total of nine girls and eight boys. Their average intelligence, as

tested and classified by the Wechsler Adult Intelligence Scale (72:20), was 82. This placed them within the dull normal range of that scale.

Limitations of the Study

There were no control groups established for this study. Therefore, no claim was made of the value of this program over other similar programs. It was noted that students did improve themselves as a group in specified areas, and that it was an effective program of study and work experience training.

The study was further limited to the seniors of the Auburn and Federal Way, Washington, prevocational program, class of 1968.

Summary

This study was undertaken to answer the following questions about the prevocational program:

1. What was the discrepancy between student vocational ideal measured by the Dictionary of Occupational Titles and what the student attained and accepted upon graduation?
2. Does the prevocational program provide the educational and habilitation resources necessary for the student's reassessment of himself and his life work?

3. What is the relationship between the student's employability, as reflected by the Employer's Reports and staff evaluations, and student's social adjustment as measured by the California Test of Personality?

II. DEFINITIONS OF TERMS USED

California Test of Personality (CTP)

This was a test which assessed the social and emotional stability of the prevocational student.

Closure

This was the releasing of a student from the prevocational program, and from DVR rolls.

Community Laboratory

This was the plant where the student spent a portion of his education in training for employment. It was an off-campus placement. It was also the name of the high school course for which the student was given academic credit.

Cooperative Agreement

This was the signed plan between the public school and the Department of Vocational Rehabilitation providing for education, training, counseling, and services to the prevocational student.

Cooperative Program

This was the same as the prevocational program.

Disability

This was a condition of impairment, physical or mental, having an objective aspect that could be described by a physician and was medically definable.

DOT Code

This was a Dictionary of Occupational Titles represented by a set of six digits. They represented certain job descriptions described in the Dictionary of Occupational Titles Manual of the United States Department of Labor.

Employability

This was a condition of adequate emotional stability and possession of usable skills of the prevocational student. It reflected the interests and level of function of the student in a remunerative and competitive job.

Employer's Report

This was a documentation which reflected progress and degree of skill acquired by a student, while a prospective employee, either in a school or a community laboratory.

General Aptitude Test Battery

This examination by the United States Department of Labor checked the student's proficiency in employable skills.

Handicap

This was the cumulative results of obstacles which disability interposed between the student and his maximum functional level. It was a measure of the loss of individual capacity affecting employability.

Prevocational Advisor (PVA), Advisor

This person was the special education instructor for the student both in the classroom and in the laboratories.

Prevocational Program

This was the senior high school special education system providing instruction, counseling, diagnostic services, and work experience training to handicapped students. It was a joint effort of the public school and the Department of Vocational Rehabilitation.

School Laboratory

This was similar in purpose to the community laboratory, except that it was in public schools utilizing school personnel as supervisors.

Staff

This was a group of professional persons contracted by the school or Department of Vocational Rehabilitation to plan and assure services be given to the student. It was usually composed of a director of special education, a prevocational advisor, a psychologist, a medical consultant, a social worker, and a vocational rehabilitation specialist.

Supervisors

These were persons other than prevocational personnel who were in charge of the prevocational student during a laboratory placement. They may have been certificated or non-certificated personnel in the school or employers in the community.

Vocational Rehabilitation Specialist (VRS), Specialist

This person was an in-resident counselor furnished by the Department of Vocational Rehabilitation. He helped the advisors in developing a program, was a counselor to the students, and was procurer of diagnostic services.

CHAPTER II

DEVELOPMENT OF VOCATIONAL CHOICE AND PRIOR RESEARCH

I. DEVELOPMENT OF VOCATIONAL CHOICE

The Advisor and the Specialist Devise a Guide

The specialist and advisor devised a guide to help the student make vocational choices either as goals or as desired community laboratory placements. (See Figure 2.) The guide offered logical order of progression for getting a chance to try out the choice. The elements were alternative choices, choice, plan, action, and consequences of seeking goal. The element of choice had four dimensions--reality, stability, compatability, and commitment--which had to be satisfied to qualify the choice as a satisfactory one.

The guide provided for feedback or return to the original choice for self-evaluation and review to see if it was as good as was expected. The specialist kept a record of three alternates for each sample student to see if any of the choices materialized into paying jobs later.

Interests and Plans Change as Noted From Research

Research shows that interests and choices change as occupational information is gained:

When the client through counseling comes to understand his interests, aptitudes, and personality traits and how they can best be utilized in the world of work, he can then derive optimal benefit from occupational information. Occupational information should include job duties, salary level, work requirements, advantages and disadvantages of the occupation, the employment outlook in suitable work areas and employment trends in general. Much information is contained in publications which the counselor can make available to the client (50:86).

A study by Cooley (14:1) has shown that interactions take place during high school among interests and abilities which cause career plans to change throughout the years.

The level of aspirations, emotional disturbances, and learning in educable mentally retarded boys as tested by Subotnik (63:767) and Gardner (28:899) seem to be interconnected. Goal-setting behaviors of his subjects followed the pattern of being raised after success and being lowered after failure.

Sister Kleibhan (45:220) suggested by her study that goal-setting and modeling on the job could be augmented by both personal and social motivational factors.

Tizard and Loos (68:85) found that retarded subjects learned an occupational task faster and accepted the work better when teamed with more adept individuals.

Edmunson (23:1017) revealed that social cue interpretations by retarded adolescents in a prevocational program can be improved through training.

Reality of Choice

The advisor and the specialist helped the student form a realistic appraisal of his present capacities, his personal characteristics, and job potentialities, and to gain information about alternate job objectives. These needed to be within his capabilities or attainable within a relatively short period of time, say one year, or by the time the student graduated.

Reality and reason, according to Freud (71:443), modifies and channels the drives of the external world outside the body. This "ego" in guiding activities takes into account the external world and its realities.

Reality as expressed by Millenson (51:300) was a concept exhibited when first, a student could identify any number of a set of related situations to himself, and second, when he could acquire that ability via past reinforcement history.

Stability of Choice

The choices of vocational possibilities were most generally concentrated upon one at a time. This was to enable a student to consider what parts of it were sound and immutable in relation to his own interests and abilities. A certain amount of immobility had to be attached to a choice at this time to allow for collection of materials and information. The student has to see how stable a job it was for friends he knows or new workers he met while on a field trip or a visit.

This was often a good time to counsel the student and develop an understanding of the functions of the program. To keep the student from getting too many ideas for jobs and not concentrating on one, the advisor presented: (1) The basis of his eligibility in the program and the basic conditions under which the program provided services he requested and needed, (2) a mutual understanding and respect among all personnel involved, and (3) agreed upon the most suitable job objective or occupational field for the student (50:41).

A stable choice would have qualities for independence, working alone with a minimum amount of supervision, and some provision for possible steady employment.

Compatibility of Choice

The student had to choose a training position where his performance was compatible with what would be expected of him. Such a choice of jobs had to provide for working conditions where the student had a chance to make friends, he felt it was morally right and accepted by his family, and he could gain some importance as a person. It was necessary for a student to gain recognition for his work at least within a small group, such as his fellow co-workers.

It had to offer something he would consider to live with or pursue for his own pleasure. The choice should have had some qualities congruous with his personality.

Kunce (48:222) found that style of life had quite a bearing on one's performance and compatability, that style of life was closely connected to the types of jobs picked within a certain business.

Commitment of Choice

All the choices were reviewed quickly at this stage so that a student could assess whether or not he wished to pursue the choice into the next step. Generally up to this time formulation of choice was in a talking and looking stage. Actual academic work connected with the development of a vocational choice began with the next step.

Student's Own Plan

The student's plans for carrying out his choice of vocation became more academic as material and information collected previously was now put to use in individualized curriculum in the classroom.

Adler (71:459) has suggested that individuals pursue their goals in life in a special sense.

Man is motivated more by his future expectations than by his past experiences. He behaves as if his goals were that which motivates him. These goals are a part of a theological design, although they are fictions; they permit the individual to guide his behavior in line with his expectations. The goal toward which a person strives explains his behavior. The goals he sees determine what he will do. Not that he is always aware of these goals, as a matter of fact he is largely unaware of them--they are goals which he does not understand.

Once a choice or goal was set and the student said, "This is what I want to do," he set forth on some plan. Plans were often very skeletonized and without much understanding on how to accomplish them. Some plans have been developed through some workbooks used in the program, such as the Job Occupational Series published by Science Research Associates, Inc., and the Turner Career Guidance Series by Follett Publishing Company.

At this time, a prevocational plan was being formed by the specialist and the advisor for each student. This plan was a prescription of classroom, community laboratory, and interpersonal experiences which were recommended for each client after a study of his needs. The basic ideas of the prevocational plan was adapted from one used by the Tacoma prevocational program (67:1; 29:9).

Action Initiated to Get Experience in Vocational Choice

Field trips either as a group or individually were a part of the development of a suitable vocational choice. The student was given opportunities to visit industries and businesses which reflected his interests. Placements were made into school laboratories which were as close as possible to the vocational choice area. If he had already shown satisfactory accomplishments in this area, he was placed in a community laboratory.

Consequences of Placements

A community laboratory experience or a remunerative job had some rewarding consequences if the student found satisfaction in working or training at the placement. There was a pleasant interaction between the student and the business. Both gained understanding and were rewarded from the association. Rewarding consequences for both the business and the student has been reflected in the idea of "satisfactoriness" in work adjustment in Minnesota (20:5). One of their theories of work adjustment says a person brought certain skills to the work environment. The work environment provided certain rewards (e.g., wages, prestige, security, personal relationships) to the person.

If a choice proved unrewarding, the student began the cycle again with an alternative choice. (See Figure 2, page 19.)

II. PRIOR RESEARCH

Records of the previous year's operation reflected generally that any lack of student progress in the prevocational preparations or work experiences was attributable to their social and emotional maladjustment or their poor vocational choices. Further research was conducted to find out what other educators or organizations had found and planned in working with the handicapped persons.

The results of these investigations have been divided into five main sections: (1) Instructional methods, counseling, and environmental settings; (2) generalization of knowledge and attitudes to work experiences; (3) grooming, appearance, and acceptance; (4) earlier influences or experiences; and (5) extent of economic independence and self-sufficiency.

Instructional Methods, Counseling, and Environmental Setting

Rothstein (59:305), with the guidance of Kirk (26:10) and Johnson (40:194), developed a program in Illinois in 1948. They recognized then that it was important to the employer to recognize that this was a school program. It was not a program where some students were working part-time. It was recognized by both employer and student that a specific job had been approved for an individual and it was a part of the school curriculum. Student work was evaluated and his tenure on the work experience and school credit were dependent upon each other. Sometimes a student may have been occupationally ready, but he was so involved in school activities which were making a contribution to his social adjustment that it was inadvisable to give him a work experience program at that time. There was considerable liaison with employers and other teachers in the school.

Cruickshank and Johnson (17:50) have pointed out that a program coached in the development of prevocational skills and of attitudes which

are essentially positive toward the community, the employer, the labor union, and to the social structure of the retarded child. It was a program which sought "to give the retarded adolescent as much contact with the total school program as is possible, but which always provides a situation in which impossible competition is minimized . . ." (17:114).

Johnson (40:194), Heber (35:54), and Rogers (58:70) have outlined programs based upon the part-time education and work experience where the students experience real work situation in the community and benefited from integrated regular classroom instruction. All seem to agree that a program should provide for (1) personal or emotional adjustment, (2) social adjustment, and (3) economic adjustment. They place the sequence of training in the same order, also.

The subcommittee on Mental Retardation (24:8) to the (Washington State) Governor's Inter-Agency Committee on Health, Education, and Welfare Programs in 1961 stated programs for mentally retarded youth in prevocational training should include sheltered workshops, employment training, state agencies assistance, and a continuing research to study job opportunities for the mentally retarded people of the state. Glidewell of the St. Louis County Health Department (30:15) and Bloom (7:393) of Texas have reported outstanding progress in their respective states in accomplishing these aims.

Generalization of Knowledge and Attitudes to Work

Neuhaus (53:75) and Bloom (7:393) have found that in general, retarded workers displayed satisfactory work performance in achieving competitive production standards when their abilities were matched to their job. In both cases, training outside the classroom situation contributed to a more positive socially acceptable personality than those still confined to a non-work type of training.

Techniques of shaping processes suggested by Millenson (51:62, 89) and Haring and Kunzelmann (33:Ch. 1) in the manner of operant strengthening, extinction, and reconditioning were put into effect with the Auburn sample group in an attempt to structure behavior which would carry over to work experiences. Shaping processes outlined by Reese (56:73) and Haring and Phillips (34:Ch. 1) were also used as a guide. They favored changing learning structures by beginning with a favorable structured classroom where the students gathered materials and acquired information which would generalize to other areas. Motivation was established with a variety of reinforcers.

Millenson (51:204) has pointed out the confusion which develops in the behavioral analysis processes:

. . . examples of children confusing one situation with another through indiscriminate responding are cases in which generalization appears to hinder the adaptation of an organism to its world. But generalization is equally a very useful property of behavior.

For instance, skills learned in one environmental situation can be used in new environmental situations Out education system is predicated on the assumption that the skills acquired in school will spread to environments outside the school. Still, the generalization gradient is there to remind and caution educators that the more closely a training situation resembles the situation in which the behavior will later be needed, the more effective will be the training. Schools and other agencies use this principle when they make the training situation as near to "real life" as possible.

Earlier studies and reports of Eskridge and Partridge (25:452), Goldstein and Heber (31:309), and Kirk (44:62), noted that the mentally retarded were losing jobs more often by their failure to adjust to a new work situation than by their inability to perform the specific tasks assigned. The retarded were having difficulty acquiring or generalizing attitudes to new situations.

Kephart (42:223) and Hegge (36:660) have pointed out the importance of keeping the student in a favorable environment for proper stimulation and to maintain an active mind. A background of experiences with materials, tools, and apparatus greatly aid youth in adapting to new situations.

Grooming, Appearance, and Acceptance in School and Work

A study was made by Johnson (39:89) of the social position of mentally handicapped children in the regular school grade classroom. The students were divided into three social positions by a questionnaire with the following results:

<u>Position</u>	<u>Retarded Pupils</u>	<u>Typical Pupils</u>
Stars	5.13%	17.45%
Isolates	69.23	39.00
Rejectees	46.15	4.40

Reasons for isolation and rejection of retarded pupils by their age peers appeared to be associated with antisocial behavior rather than poor academic achievement.

Cohen (13:54), Cruickshank and Johnson (18:129), suggest from their studies that how one looks at his self and how he interrelated between self-concept and other values has some bearing on success in a vocational interest area. This tends to support Rogers' theory (57:18) that an individual attempts to maximize the congruence between awareness experience and behavior in making his decisions toward vocations. Super (65:142) found an individual tends to express his self-concept through his complex, real-life decision such as his vocational choices and decisions of which to pursue.

Bauer (2:481) and Carlson (9:461) found that data on applications or questionnaires were relied upon by hiring personnel since past achievements seem to predict quite accurately the future vocational ability or attainment. Appearance of certain personalities was found to be subject to change, could be altered, and upgraded easier than past experiences and abilities.

Madison (49:50), Daly and Cain (19:154), and Jackson and Butler (37:211) all recognized from their studies that personality characteristics of compliance to adults and favorable interpersonal contacts were the most important factors in successful placements.

Earlier Influences or Experiences Affecting Performance

Paine, Deutsch, and Smith (54:320) showed that family backgrounds and work values were important factors in vocational development. Friend and Haggard (27:1) concluded that people take their early experiences and attitudes with them on their jobs and react to their work accordingly. Porter (55:215) and Wrenn (73:72) found the prestige level of the father's occupation was related to vocational planning and preference of high school boys.

Early developing personality factors have demonstrated great usefulness in predicting employability of students. Kolstoe (46:482), in interpreting his study of unemployed and employed mentally retarded adults, stated:

It would appear, therefore, that the ideal program for developing vocational potential among the mentally retarded would call for training in the development of personal independence and responsibility.

Anderson and Anderson (1:13) revealed in a study of the socially integrative behavior that personality has two top levels of growth and development, in relationship to conflict of the individual with his

environment. These levels were: (1) socially integrative behavior composed of maximum acceptance of the domination or pressure of one's environment against him without noticeable loss of one's own spontaneity, and (2) avoidance of domination of the environment.

Individual differences, developed early in life, have a bearing on how a person performs on a job and how he relates himself to his work. Kuncze (48:222) has found a relationship between a person's style of life, as reflected in his interests. Whether or not an employee was cautious or adventuresome had some bearing on his accident record, tenure on the job, how he related to other people, and the type of job he chose.

Rouse (60:669) had good results in letting her students work out their problems in productive and creative sessions. It allowed many of the more unsettled and socially maladjusted to "blow off steam." This was quite similar to the "brain storming" sessions initiated at the end of each week in the prevocational program. These sessions, suggested by Jacobson and Knowles (38), helped the students discuss and get a better understanding of problems influencing attitudes and decisions about vocational choices.

Extent of Economic Independence and Self-Sufficiency

Studies of Beaman (5:231) and Vickery (69:4) indicated that the majority of educable mentally retarded who lose their jobs lose them for

nonmanual reasons. Cohen (12:371) also found the reason for clients' return to residential training areas after failure to keep a job was violation of social conventions.

Kirk (44:13) has covered considerable research on the vocational rehabilitation of retarded adults and said:

1. Under favorable conditions of education and with community acceptance about one-third to three-fourths of the school age mentally retarded group adjust marginally to community life, obtain unskilled and semiskilled jobs, and support themselves and their families without extensive help from agencies.
2. Of those who had been classified as mentally retarded at school age, approximately one-third to one-quarter present social problems and require habilitation in terms of social and occupational training after leaving school. Court records, delinquency and inadequacy on jobs represent their problems. It is for this group that greater effort is needed by vocational rehabilitation agencies. This is probably the group that requires sheltered workshop training and social guidance.

A study by Cohen and Rusalem (13:816) showed that retarded workers valued "be my own boss" first, then other vocational rewards such as salary, interesting work, prestige, and security were secondary values. Tate, et al (66:405) found the value of money as an incentive to do better work depended upon the level of the work and the setting. Other types of rewards for satisfactory work was noted by Nealey and Goodale (52:357). Industrial workers considered benefits such as sabbatical leaves and shorter work weeks above more money.

Warren (70:629) used a rating scale similar to the Employer's Report used in the prevocational program. He found the factors therein were important in determining employment or unemployment of mentally handicapped in his study. It appeared that the rating scale was a useful predictor of potential employment. The employer's role in guiding and reporting results of progress was an important one. Stahlecker (62:463) recognized that

School curriculum for slow learners becomes more functional when learning is related to work experience programs. Students are able to apply this learning directly and specifically to the jobs they are performing. The relationship between school, job, and adulthood is more apparent and curriculum now assumes importance.

Kolstoe (47:17) and Wrenn (73:77) recognized the need for a vocational preparation of such students as the school dropout and those who achieve below their capabilities, as well as the handicapped. They both contend that these students need prior training at work experiences during their academic schooling time. Kolstoe stated that if the local counselor of a high school attempted job placement of his client, he would have been asked often "What experiences has he had?" The answer of "none" was often the end of the conversation and the hopes of the client.

Baller (4:165) conducted a study during the depression to find the status of a group of adults who, when in elementary schools, had been classified as mentally deficient. Two and one-third times more

retarded than normal subjects were on the relief rolls. A follow-up study of the above group was conducted by Charles (11:3) in 1953. Sixty-six per cent were self-supporting, 25 per cent had received some economic aid, and 9 per cent received considerable aid. Kennedy (41:1) made a study of retarded adults also and found that large percentages of the subjects were unemployed, married, on relief, and had come to the attention of the police and courts.

CHAPTER III

SERVICES OF THE DEPARTMENT OF VOCATIONAL REHABILITATION AND THE AUBURN PREVOCATIONAL DEPARTMENT

The provisions offered by vocational rehabilitation through an inter-disciplinary approach within the school setting was a new approach to a method for serving a student in the state of Washington. This cooperative service had been developed in only one other school in the state prior to this program. This was an involvement of the prevocational advisors of the public school and the specialist from the Department of Vocational Rehabilitation in a program to help students gain the proper education and services to prepare them for vocational and social competency.

The spectrum of services was divided into four phases, paralleling the progression of the prevocational education plan. (See Figure 1, page 19.)

I. FLOW OF SERVICES--PHASE I

The first of the flow of services was the referral stage of a student into the senior high school prevocational department. A special education student completing the ninth grade was referred as a standard procedure. Others were accepted through referral from other programs.

Upon parental approval, a student was assigned to the prevocational program for further assessment by the Department of Vocational Rehabilitation. No other special education program was offered. Special education and the prevocational program were one and the same department. The advisor immediately began involving the student in academic problems and social interactions within the program. The specialist was completing or arranging for diagnostic work on each of the students.

DiMichael (22:Ch.2) defined the student most likely to benefit from a program such as this as (1) of working age or will upon completion of the program meet the local minimum working age law, (2) having a mental impairment or physical impairment that makes it likely he would need adjusting to adequate jobs, (3) lacking in educational opportunity or other services, (4) prognosis for the vocational rehabilitation of such an individual is favorable, (5) an inadequacy of intellectual functioning neither so severe nor so inclusive as to eliminate the mental and personality resources necessary for successful vocational habilitation or to prevent their mobilization.

II. FLOW OF SERVICES--PHASE II

Eligibility and feasibility of the student needed to be determined early in the process. Eventually, it was concluded that some students were not eligible; for example, a student whose problem was minimal

and did not require extensive services. The student may have responded to evaluation and consultation services so well that within a month or so he had established his own plans for graduation, employment, or self-dependence, and made a successful adjustment. Other students whose disability was so severe that available services of the school and Department of Vocational Rehabilitation could not be expected to accomplish results commensurate with the expense were rejected as not feasible and referred to other agencies.

Eligibility under agency rules involved the presence of a disability which created a vocational handicap. In addition, there must have been a reasonable expectation that the services would result in remunerative employment (50:111).

III. FLOW OF SERVICES--PHASE III

This phase began when the student was officially accepted for services from the school and the Department of Vocational Rehabilitation. The usual course of services to a student was a sequence of physical restoration, psychological and social services, and job training sessions. Most of the training in this phase was in the community where the student was fulfilling the prerequisites for a full-fledged job or was making plans for being enrolled in a vocational school after graduation. Some vocational school placements were made in lieu of a community laboratory placement during the second semester.

The prevocational department and the Department of Vocational Rehabilitation program goals worked out for each student were the same as a joint effort of both departments. These were subject to review and revision from day to day, depending upon their progress. The resources of both departments continued to be used with the thought that what was best for the student was the best plan.

A large percentage of time was spent on prevocational training of a nature not academically oriented. Much of the subject matter was job, attitude, and public association oriented. Some students were retained in this phase of the program for up to eighteen months before a decision was reached to retain them as feasible.

IV. FLOW OF SERVICES--PHASE IV

The final establishment of a vocational objective for each student required a special staffing. Consultation was necessary with respect to possible changes in the student's restoration and vocational plans. This was often the case in the last two months of school. It was established that the vocational objective had been accepted by the student and was still maintained.

There were cases where graduation was not accomplished. In these cases, the specialist still held him as a client of the Department of Vocational Rehabilitation, even though the student had left school.

In this manner, the student was still assured of further services, if needed, and if he desired them. The specialist continued to maintain a counseling relationship with the student and offer him services. A review of the progress of the student was necessary for assurance of a successful placement leading to closure on each case. If, after a period of two or three months, observation indicated that placement was successful, the specialist closed the case.

CHAPTER IV

METHOD OF GATHERING DATA AND FINDINGS

I. GENERAL APTITUDE TEST BATTERY

The General Aptitude Test Battery B-1002 (32:1) was administered to the sample group during the first semester of their senior year by personnel of the Youth Opportunity Center, Seattle, Washington. The staff employed the test results to aid them in making predictions and suggestions for vocational choices in which the students should realize some success.

The test, developed by the United States Department of Labor, was standardized for the general working population and measured nine aptitude areas: intelligence; verbal, numerical, and spatial aptitude; form and clerical perception; motor coordination; and finger and manual dexterity. A score of 100 approximated the fiftieth percentile and a score of 80 approximated the sixteenth percentile for the general working population in all job areas tested.

Three areas of the nine in the test were representative of the most important for each job described by the United States Department of Labor. This group of aptitude areas was called the Occupational Aptitude Pattern. Each job had its own peculiar occupational aptitude

pattern established. Each OAP had its own cut-off score. Cut-off scores for most areas considered for the sample group were around 80. It was not unusual for the sample group to make a satisfactory score in only a few job areas. Some of them failed to get a significant score in any job classification.

The students were counseled in making realistic occupational choices using the results of the General Aptitude Test Battery. They were advised, in view of their peculiar functions and limitations, to avoid certain jobs. They were advised further to begin to choose jobs more in line with their abilities as reflected on their General Abilities Test Battery and the other diagnostic tests administered to them.

II. DETERMINATION OF VOCATIONAL CHOICE AND ATTAINMENT

The numbering system describing particular jobs in the Dictionary of Occupational Titles (21:xv) was used to categorize students' vocational choices and levels of attainment. (See Table I.) The numbering system was composed of a set of six digits. The first three digits, called the Occupational Group Arrangement, represent definitions of (1) what gets done, (2) how it gets done, and (3) why it gets done. Throughout this arrangement, jobs are grouped according to a combination of work field, purpose, material, product, subject matter, service, generic term, and/or industry. The first digit of the code number

TABLE I
LEVELS OF VOCATIONAL ATTAINMENT OR SCHOOLING
PREVOCATIONAL CLASS OF 1968

Subject	Vocational Choice First Semester		Level of Attainment Job or Schooling			
	OGA	WTA	WTAA	OGA	WTA	WTAA
1	313.381		4.0	311.878		7.6
2	079.378		6.0	306.878		7.6
3	620.281		3.6	915.884		6.6
4	424.883		6.3	922.887		7.6
5	201.368		5.6	230.878		7.6
6	079.378		6.0	230.878		7.6
7	159.148		4.3	922.887		7.6
8	005.081		3.0	749.884		6.6
9	620.281		3.6	922.887		7.6
10	620.281		3.6	889.884		6.6
11	352.878		7.6	318.887		7.6
12	079.378		6.0	323.887		7.6
13	206.388		6.3	230.878		7.6
14	079.378		6.0	306.878		7.6
15	620.381		4.0	311.878		7.6
16	206.388		6.3	306.878		7.6
17	526.781		5.3	780.887		7.6

Code represented by OGA is the Occupational Group Arrangement.

Code represented by WTA is the Worker Traits Arrangement.

Code represented by WTAA is the average of WTA.

indicates the nine occupational categories, as identified by the numbers 0 through 9:

- 0
- 1 Professional, technical, and managerial occupations
- 2 Clerical and sales occupations
- 3. Service occupations
- 4 Farming, fishery, forestry, and related occupations
- 5 Processing occupations
- 6 Machine trades occupations
- 7 Bench work occupations
- 8 Structural work occupations
- 9 Miscellaneous occupations

The last three digits of the Occupational Classification and Code were called the Worker Traits Arrangement and represented jobs required of workers in relation to data, people, and things in varying degrees. The relationships specific to data, people, and things was arranged in each case from the simple to the complex in the form of a hierarchy so that, generally, each successive function included the simpler ones and excluded the more complex functions. It was possible to express a job's relationship to data, people, and things by identifying the highest appropriate function in each hierarchy in which the job required the worker to have a significant relationship. Together, then, the last three digits of the code number expressed the total level of complexity at which the job required the worker to function.

The following list shows that a job which was the most complex begins with the number 0. Progressively less complex jobs follow in numerical order, the least complex job being represented by the number 8.

DATA (4th digit)	PEOPLE (5th digit)	THINGS (6th digit)
0 Synthesizing	0 Mentoring	0 Setting-up
1 Coordinating	1 Negotiating	1 Precision working
2 Analyzing	2 Instructing	2 Operate-control
3 Compiling	3 Supervising	3 Drive-operate
4 Computing	4 Diverting	4 Manipulating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking-signaling	6 Feed-offbearing
7 No significant	7 Serving	7 Handling
8 relationship	8 NSR	8 NSR

The last three digits of an Occupational Classification and Code were selected to represent the hierarchy of complexity for a community or school laboratory placement. In this manner, it was determined whether or not a particular placement was more difficult than another. The average of the sum of these last three digits was used to further identify each placement in the school or the community. This particular code used in this study was also used to identify the vocational choice of each student.

In this manner, the two codes were compared and the discrepancy between vocational choice of the student and his level of attainment, as determined from the Dictionary of Occupational Titles, was determined. (See Table II.) A record of the predicted level of attainment for each student, as determined by the advisor, was kept also. However, no comparison between predicted level of attainment and actual level was made a part of this study, because the student's own choice was considered more important.

TABLE II
VOCATIONAL CHOICE VERSUS ATTAINMENT

Subject	Vocational Choice	Attainment	di	Rank of di	Rank with less fre- quent sign
11	7.6	7.6	0.0	0.0	
4	6.3	7.6	-1.3	-2.0	
13	6.3	7.6	-1.3	-2.0	
16	6.3	7.6	-1.3	-2.0	
2	6.0	7.6	-1.6	-5.5	
6	6.0	7.6	-1.6	-5.5	
12	6.0	7.6	-1.6	-5.5	
14	6.0	7.6	-1.6	-5.5	
5	5.6	7.6	-2.0	-8.0	
17	5.3	7.6	-2.3	-9.0	
7	4.3	7.6	-3.3	-12.0	
1	4.0	7.6	-3.6	-14.0	
15	4.0	7.6	-3.6	-14.0	
9	3.6	7.6	-4.0	-16.0	
10	3.6	6.6	-3.0	-10.5	
3	3.6	6.6	-3.0	-10.5	
8	3.0	6.6	-3.6	-14.0	
N = 16					T = +0

Vocational choice at the beginning of the school year and actual attainment at the end of the school year was tested with the Wilcoxon Matched-Pairs Signed-Ranks Test. It was expected that there would be a wide difference in the job titles of the two groups. There was a significant difference for sixteen students at the .005 level in the direction of realistic goal and level of function.

III. EMPLOYABILITY SCALE

The Employer's Report (See Appendix) was utilized as a tool to implement employability of each student. This report was completed at the end of a semester or on termination from a community laboratory work experience. This facilitated having a report during the first part of the school year and at the end of the school year. In this manner, it was possible to determine employability at the beginning and end of the school year.

A comparison between two reports could then be made. A comparison of the results of the beginning and end of the year personality or social adjustment as determined from the California Test of Personality was made. Correlation between social adjustment and employability was possible by comparing the Employer's Report scores with the raw score of the California Test of Personality. The hypothesis that there was a direct correlation between social adjustment (or personality) and employability could then be tested.

A scale was established for this study for the Employer's Report. Each of the fourteen items rated on the report was rated in terms of excellent, good, fair, or not satisfactory. An additional item of whether or not the student would be considered for employment was given a similar rating. Excellent was given the value of 3, good a value of 2,

fair and not satisfactory a value of 1. The answer to the question of hiring was given values of from 0 to 3. This established a fifteen response report with a scale range of from 45 to 14. This raw score divided by the number of responses gave the Employability score for each student on any of his jobs. A perfect report, or one which reflected excellent employability in that particular job, had a score of 3.0. As can be seen on Table III, one Employer's Report in this study produced a score of 1.4, the lowest score in this study.

The criteria for evaluating the student from the information on the Employer's Report remained the same for both the school and the community laboratories. The student was rated on his performance in relation to what was expected of him in his particular job assignment, and how his performance was in relation to how an average employee would perform at the same job.

The reports used to evaluate beginning and end of the year employability may have come from different supervisors, as the reports represented different jobs. As a policy of the program, many students had many jobs throughout the school year. It was generally noted that reports from supervisors of community laboratories were more critical than supervisors of school laboratories. The community laboratory jobs were generally more difficulty; therefore, the students had to work

TABLE III
EMPLOYABILITY

Subject	First Semester	Second Semester	di	Rank of di	Rank with less frequent sign
1	2.3	2.9	.6	12	
2	1.9	2.0	.1	2	
3	2.0	3.0	1.0	14	
4	2.0	2.8	.8	13	
5	1.9	2.3	.4	10.5	
6	2.3	2.5	.2	6	
7	2.0	2.0	--	--	
8	2.8	3.0	.2	6	
9	2.0	1.9	- .1	2	-2
10	2.8	3.0	.2	6	
11	1.4	1.5	.1	2	
12	2.0	1.8	- .2	6	-6
13	2.0	2.0	--	--	
14	2.1	1.8	- .3	9	-9
15	1.6	2.0	.4	10.5	
16	2.0	2.0	--	--	
17	1.8	2.0	.2	6	
N = 14					T = 17

Employability was tested using the Wilcoxon Matched-Pairs Signed-Ranks Test. A significance was demonstrated between first semester test and second semester test in the direction expected. Employability did improve. The results have been accepted as significant at the .025 level.

even more efficiently to earn a report which showed improvement over a school laboratory report.

IV. CALIFORNIA TEST OF PERSONALITY

Use of the CTP by Others

Cassidy (10:13) investigated the differences between mentally retarded children in special and regular classes. She compared the academic achievements and person-social adjustment of mentally retarded children and found the special class students demonstrated greater personal and social adjustment, but poorer academic progress.

Blatt (6:810) used the California Test of Personality to check the personality status of mentally retarded teenage children attending regular classes. The test indicated no difference between groups in personality and social adjustment.

Snyder (61:33) used the test in a study to find a significant relationship between junior high school age retardates' level of personality integration and their school achievement. He found that,

Personality variables are highly related to academic attainment . . . poor achievers show greater anxiety than their better achieving peers . . . and IQ and socio-economic differences between higher and lower achieving individuals in the study are inconsequential.

Validity of the CTP

Cronbach (16:93) has suggested that answer forms such as "Yes" and "No" as used in the California Test of Personality increases validity of correct answers. A test which introduces an undecided or question answer introduces extraneous variance.

Syracuse University (64:5) found that the test correlated more closely with clinical findings than any other test of personality.

Buhler (8) expressed his view that the test provided a means of obtaining data for individuals usually obtained by time-consuming interviews, and that the instrument could be considered a "Level I" projection test.

Baker (3:379) noted that generally children's problems are so close to their way of life that they could scarcely refrain from answering the way they feel.

Freeman (26:469) commented that the broad two-fold division between personal and social adjustment tested was consistent with a rather frequent practice of classifying. He further stated that the whole person is involved in behavioral difficulties or disorders in his environment and this test [CTP] does assist in identifying some of the principal sources of an individual's problem (26:470).

TABLE IV
CALIFORNIA TEST OF PERSONALITY

Subject	First Semester	Second Semester	di	Rank of di	Rank with less frequent sign
6	146	144	2	3.5	3.5
11	143	137	6	5.5	5.5
4	134	164	-30	-14.0	
3	129	138	-9	-8.0	
9	127	126	1	1.5	1.5
14	126	128	-2	-3.5	
7	126	127	-1	-1.5	
1	115	159	-44	-16.0	
17	112	128	-16	-10.0	
12	112	120	-8	-7.0	
5	111	139	-28	-13.0	
2	108	114	-6	-5.5	
16	101	112	-11	-9.0	
8	100	135	-35	-15.0	
10	93	119	-26	-12.0	
15	85	105	-20	-11.0	
13	68	115	-47	-17.0	
N = 17				T = 10.5	

Results

The California Test of Personality was used in this study to determine social and emotional adjustment of the prevocational students. Each student was given the test at the beginning of the school year and during the last month of the school year prior to graduation. There was a span of seven months between testing periods.

The raw scores of the group were compared using the Wilcoxon Matched-Pairs Signed-Ranks Test to test the direction and magnitude of the scores. The results indicated there was a significant difference between tests. A T score of 10.5 for this group was well within the range possible to indicate a significant change. The level of significance was .005 for a sample group of seventeen subjects toward better social-emotional adjustment. (See Table IV.)

TABLE V
COMBINATION OF VOCATIONAL CHOICE, EMPLOYABILITY,
AND SOCIAL-EMOTIONAL ADJUSTMENT

	Vocational Choice		Employability		Adjustment	
	1	2	1	2	1	2
1	4.0	7.6	2.3	2.9	115	159
2	6.0	7.6	1.9	2.0	108	114
3	3.6	6.6	2.0	3.0	129	138
4	6.3	7.6	2.0	2.8	134	164
5	5.6	7.6	1.9	2.3	111	139
6	6.0	7.6	2.3	2.5	146	144
7	4.3	7.6	2.0	2.0	126	127
8	3.0	6.6	2.8	3.0	100	135
9	3.6	7.6	2.0	1.9	127	126
10	3.6	6.6	2.8	3.0	93	119
11	7.6	7.6	1.4	1.5	143	137
12	6.0	7.6	2.0	1.8	112	120
13	6.3	7.6	2.0	2.0	68	115
14	6.0	7.6	2.1	1.8	126	138
15	4.0	7.6	1.6	2.0	85	105
16	6.3	7.6	2.0	2.0	101	112
17	5.3	7.6	1.8	2.0	112	128

Scores in column labeled 1 are the results of first semester tests or evaluations. Scores in column labeled 2 are the results of end-of-the-year tests or evaluations.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The prevocational program was designed to give senior high school special education students and other students who were deemed eligible a chance to engage in academic and work experience programs. The program was divided into two basic curricula: (1) three hours of academic or school oriented activities, and (2) three hours of work experience either in the school or in the community with prospective employers. The exact time spent in each curriculum varied with the individuals, depending upon their needs and function.

During the first year of operation, several things were noted which were peculiar to the students. One was their very noticeable deficiency of knowledge amenable with vocational choice making; another was the students' unfavorable attitude and associations with adults; a third was a general feeling of dissatisfaction and misunderstanding of their own handicaps. The staff thought social maladjustment and poor work records were closely related. Progress in employability, attitudes, and vocational choice development was thought to develop in a desired direction, but it went largely untested.

During the second year of operation, more time was spent in counseling, class discussions, and activities not academically oriented. The advisor of the seniors developed the Progression of the Prevocational Program chart and the Development of Vocational Choice diagram for use with the students. A sample group of seniors from the prevocational programs of Auburn and Federal Way were given a battery of tests at the beginning and at the end of their school year.

The California Test of Personality was given to assess their social and emotional adjustment. The General Aptitude Test Battery was administered to help the advisor and specialist determine the student's level of employability potential. Employer's Reports were used to evaluate students' employability. Results of these tests and evaluations indicated that as the students became more employable, they also became more social-emotionally adjusted. Results further showed that their vocational training levels which they accepted and were functioning in were far less complex than their vocational aspirations.

II. CONCLUSIONS

The data indicates that the direction of change, as predicted by the advisor and staff of the prevocational program, had occurred. The following was noted:

1. There was a wide discrepancy between the student's vocational choice at the beginning of the school year and the choice he could function at and accept at the end of the school year.
2. There was a relationship between employability and social-emotional adjustment of the students. As the students improved as a group in employability, they also improved in social-emotional adjustment. Those who made little or no gain in social-emotional adjustment also made little or no gain in employability.
3. The program was successful in getting the students to function and accept work experiences more conducive to their abilities. It was demonstrated that the program's goals that the students attain better social-adjustment personalities was also successful.

III. RECOMMENDATIONS

A portion of this study which was never tested and introduced was to see if there was any correlation between the predicted level of attainment and the actual level of attainment in a community laboratory or a vocational school. It is recommended that in future operations of a prevocational program that this be done. In this way, what the staff

predicts the student will attain and what the student actually attains can be compared. This could add another dimension to the evaluation of the effectiveness of the program.

Many of the Employer's Reports made at the beginning and the end of the year were made by different supervisors. It was not possible to evaluate progress during and between the reports of this study. It is suggested that further community laboratory reports be evaluated within themselves, and that school laboratory reports be evaluated by themselves. This should show that students actually attained a greater degree of change in employability.

It is recommended that additional research be done to find more ways to evaluate the effectiveness of the program. It is further recommended that more effective ways be developed and utilized to improve the students' employability, social adjustment, and knowledge of vocational skills.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Anderson, H. H., and G. L. Anderson. An Introduction to Projective Techniques. New Jersey: Prentice-Hall, Inc., 1951. 720 pp.
2. Baehr, Melany E., and Glenn B. Williams. "Personal Data and Occupational Classification," Journal of Applied Psychology, 51:481-490, 1967.
3. Baker, Harry. Introduction to Exceptional Children. New York: The Macmillan Company, 1945.
4. Baller, W. R. "A Study of the Present Social Status of a Group of Adults Who, When They Were in Elementary Schools Were Classified as Mentally Deficient," Genetic Psychology Monographs, 18:165-244, 1936.
5. Beaman, F. N. "The Intangibles of Special Education," Journal of Exceptional Children, 9:231-235, 1943.
6. Blatt, B. "The Physical, Personality, and the Academic Status of Children Who are Mentally Retarded Attending Special Classes as Compared with Children Who are Mentally Retarded Attending Regular Classes," American Journal of Mental Deficiency, 62:810-818, March, 1958.
7. Bloom, Wallace. "Effectiveness of a Cooperative Special Education Vocational Rehabilitation Program," American Journal of Mental Deficiency, 72:393-403, November, 1967.
8. Buhler, Charlotte. Address before the Los Angeles County Secondary Counselors Association, 1950.
9. Carlson, Robert E. "Study of Life Insurance Agency Hires on Appearance," Journal of Applied Psychology, 51:461-468, November, 1967.
10. Cassidy, Viola M., and Jeannette E. Stanton. "An Investigation of Factors Involved in the Educational Placement of Mentally Retarded Children: A Study of Differences Between Children in Special and Regular Classes in Ohio." U. S. Office of Education Cooperative Research Program, Project Number 043, Columbus: Ohio State University, 1959.

11. Charles, D. C. "Ability and Accomplishment of Persons Earlier Judged Mentally Deficient," Genetic Psychology Monographs, 47:3-71, November, 1960.
12. Cohen, Julius S. "Analysis of Vocational Failures after Institutionalization," American Journal of Mental Deficiency, 65:371-375, November, 1960.
13. Cohen, Julius S., and Herbert Rusalem. "Occupational Values of Retarded Students," American Journal of Mental Deficiency, 69:54-60, June, 1964.
14. Cooley, William W. "Interactions Among Interests, Abilities, and Career Plans," Journal of Applied Psychology, Monograph 640, Vol. 51, October, 1967.
15. "Cooperative Agreement for an Integrated Rehabilitative Program for Handicapped Youth between Auburn Public Schools and the Office of the Superintendent of Public Instruction State Board for Vocational Education, State of Washington," June 30, 1966.
16. Cronbach, Lee L. Essentials of Psychological Testing. New York: Harper & Brothers, Publishers, 1949. 475 pp.
17. Cruickshank, W. M. "Frontiers in the Education of Exceptional Children in the Secondary School," Frontiers of Secondary Education I, P. M. Halverson, editor. New York: Syracuse University Press, 1956. 112 pp.
18. _____ and G. O. Johnson. Education of Exceptional Children and Youth. New Jersey: Prentice-Hall, Inc., 1967. 730 pp.
19. Daly, F. M., and L. F. Cain. "Mentally Retarded Students in California Secondary Schools," Bulletin of the California State Department of Education, Vol. 22, 1953.
20. Dawis, Rene V., Lloyd H. Lofquist, and David J. Weiss. A Theory of Work Adjustment. Minnesota Studies in Vocational Rehabilitation: XXIII, Bulletin 47, University of Minnesota, April, 1968.
21. Dictionary of Occupational Titles, United States Department of Labor, Volume I, second edition. Washington, D.C.: Bureau of Employment Security, 1954.

22. DiMichael, Salvatore G. Vocational Rehabilitation of the Mentally Retarded, Rehabilitation Service Series 123. Washington, D.C.: Government Printing Office, 1950.
23. Edmonson, Barbara, and others. "Increasing Social Cue Interpretations (Visual Decoding) by Retarded Adolescents Through Training," American Journal of Mental Deficiency, 71:1017-1024, May, 1967.
24. Everybody's Child, The Mentally Retarded. Report of the Subcommittee on Mental Retardation. Olympia, Washington: State Printing Plant, 1961. 18 pp.
25. Eskridge, C. A., and D. L. Partridge. "Vocational Education for Exceptional Children Through Special Education," Exceptional Child, 29:452-458, 1963.
26. Freeman, Frank S. Theory and Practice of Psychological Testing. New York: Henry Holt and Company, Inc., 1955. 609 pp.
27. Friend, J. G., and E. A. Haggard. "Work Adjustment in Relation to Family Background," Journal of Applied Psychology, Monograph, Vol. 16, 1948.
28. Gardner, William I. "The Effects of Failure on Intellectually Retarded and Normal Boys," American Journal of Mental Deficiency, 70:899-903, May, 1966.
29. Gibson, J. N. "Cooperative Program for Handicapped Pupils." Research Report 10-02. Olympia, Washington: State Printing Office, 1966.
30. Glidewell, I. C., I. N. Mench, and M. C. L. Gilden. "Behavior Symptoms in Children and Degree of Sickness," St. Louis County Health Department transcript, May 4, 1956.
31. Goldstein, H., and R. Heber. Preparation of Mentally Retarded for Gainful Employment. Department of Health, Education, and Welfare, Bulletin No. 28. Washington, D.C.: Government Printing Office, 1959.
32. Guide to the Use of the General Aptitude Test Battery. United States Department of Labor, Bureau of Employment Security, Washington, D. C., January, 1962.

33. Haring, N. G., and H. P. Kunzelmann. "The Finer Focus of Therapeutic Behavioral Management," Educational Therapy, Vol. 1, Special Child Publications. Seattle, Washington: Bernie Staub, Publisher, 1966.
34. _____ and Lakin E. Phillips. Educating Emotionally Disturbed Children. New York: McGraw-Hill Book Company, 1962. 322 pp.
35. Heber, Rick F. Behavioral Research on Exceptional Children. Samuel A. Kirk and Bluma B. Weiner, editors. Council for Exceptional Children, National Education Association, 1963.
36. Hegge, Thorleif G. "Some Problems and Methods in the Education of Mentally Retarded Children," American Journal of Mental Deficiency, 51:660-665, April, 1947.
37. Jackson, Sue K., and Alfred J. Butler. "Community Placement of Institutionalized Retarded," American Journal of Mental Deficiency, 68:211-217, September, 1963.
38. Jacobson, C., and C. Knowles. Conference with these two Vocational Rehabilitation Officers during a staffing, concerning "brainstorming" and group therapy sessions, October, 1966. Auburn, Washington.
39. Johnson, G. O. "A Study of the Social Position of Mentally Handicapped Children in the Regular Grades," American Journal of Mental Deficiency, 55:60-89, July, 1950.
40. Johnson, G. Orville. Education for the Slow Learners. New Jersey: Prentice Hall, Inc., 1963. 330 pp.
41. Kennedy, Ruby, Jr. and others. The Social Adjustment of Morons in a Connecticut City. Hartford, Connecticut: Commission to Study Resources of the State of Connecticut, in Collaboration with the Carnegie Institute of Washington, 1948.
42. Kephart, N. C. "Influencing the Rate of Mental Growth in Retarded Children Through Environmental Stimulation," Yearbook, The National Society for the Study of Education, Part II, 39:223-230, 1940.

43. Kirk, S. A. Educating Exceptional Children. Boston: Houghton Mifflin, 1962. 415 pp.
44. _____. Psychological and Educational Aspects of Mental Retardation, Rehabilitation, and Research in Retardation. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1960.
45. Kliebhan, Sister Joanne Marie. "The Effects of Goal-Setting and Modeling on Job Performance of Retarded Adolescents," American Journal of Mental Deficiency, 72:220-226, 1967.
46. Kolstoe, Oliver P. "An Examination of Some Characteristics Which Discriminate Between Employed and Not Employed Mentally Retarded Males," American Journal of Mental Deficiency, 66:472-482, November, 1961.
47. _____. "The Employment Evaluation and Training Program," American Journal of Mental Deficiency, 65:17-31, July, 1960.
48. Kuncze, Joseph T. "Interrelationship of Accidents, Age, Years Employed, Job Hazard, and AP Scores," Journal of Applied Psychology, 51:222-225, March, 1967.
49. Madison, Harry L. "Work Placement Success for the Mentally Retarded," American Journal of Mental Deficiency, 69:50-53, July, 1964.
50. McGowan, J. F. Introduction to the Vocational Rehabilitation Process. Rehabilitation Service Series 555. Washington, D.C.: U. S. Department of Health, Education, and Welfare, 1960.
51. Millenson, J. R. Principles of Behavioral Analysis. New York: The Macmillan Company, 1967. 488 pp.
52. Nealey, Stanley M. and James G. Goodale. "Worker Preferences Among Time Off Benefits and Pay," Journal of Applied Psychology, 51:357-361, August, 1967.
53. Neuhaus, Edmund C. "Training the Mentally Retarded for Competitive Employment," Exceptional Children, 33:625-628, May, 1967.

54. Paine, Frank T., Donald R. Deutsch, and Rodney A. Smith.
"Relationship Between Family Backgrounds and Work Values,"
Journal of Applied Psychology, 51:320-323, April, 1967.
55. Porter, J. R. "Predicting Vocational Plans of High School Senior Boys," Personnel and Guidance Journal, 33:215-218, December, 1954.
56. Reese, Ellen P. The Analysis of Human Operant Behavior.
Dubuque, Iowa: William C. Brown Company, 1966. 73 pp.
57. Rogers, C. R. "Theory of Therapy Personality and Interpersonal Relationships as Developed in the Client-Centered Framework,"
Psychology: A Study of Science. New York: McGraw-Hill, 1959.
58. Rogers, L., and Thomas J. Murphy. Preparation of Mentally Retarded Youth for Gainful Employment. Department of Health, Education, and Welfare, Bulletin 28. Washington, D. C.: Government Printing Office, 1959.
59. Rothstein, Jerome H. Mental Retardation. New York: Holt, Rinehart, and Winston, 1962. 628 pp.
60. Rouse, Sue T. "Training Program of Educable Mentally Retarded,"
American Journal of Mental Deficiency, 69:666-673, March, 1965.
61. Snyder, Robert. "Personality Adjustment, Self Attitudes, and Anxiety Differences in Retarded Adolescents," American Journal of Mental Deficiency, 71:33-41, July, 1966.
62. Stahlecker, Lotvar V. Occupational Information for the Mentally Retarded. Illinois: Charles C. Thomas, Publisher, 1967. 816 pp.
63. Subotnik, Leo. "Level of Aspiration, Emotional Disturbance, and Learning in Institutionalized Educable Mentally Retarded Boys,"
American Journal of Mental Deficiency, 71:767-771, March, 1967.
64. Summary of Investigations Number One, Enlarged edition, California Test of Personality. Los Angeles, California Test Bureau, 1949.
65. Super, D. E. Vocational Development: A Framework for Research. New York: Columbia University Press, 1957. 142 pp.

66. Tate, B. G., and G. S. Barroff. "Training the Mentally Retarded in a Production of a Complex Product: A Demonstration of Work Potential," Exceptional Child, 33:405-408, February, 1967.
67. The Prevocational Plan. Tacoma, Washington: Tacoma Public Schools, Office of Pupil Personnel Services, August, 1967. (Mimeographed.)
68. Tizard, J., and F. Loos. "The Learning of a Spatial Relations Test by Adult Imbeciles," American Journal of Mental Deficiency, " 59:85-90, July, 1954.
69. Vickery, Clement C., M.D. Work Evaluation and Employment Preparation Services for Mentally Retarded Adults. Lawrence, Kansas, Goodwill Industries of America, Inc., 1961.
70. Warren, F. G. "Rating of Employed and Unemployed Mentally Retarded Males on Personality and Work Factors," American Journal of Mental Deficiency, 65:629-633, March, 1961.
71. Watson, Robert I. The Great Psychologists. New York: J. B. Lippincott Company, 1963.
72. Wechsler, D. Manual for the Wechsler Adult Intelligence Scale. New York: The Psychological Corporation, 1955.
73. Wrenn, C. Gilbert. The Counselor in a Changing World. Washington, D.C.: American Personnel and Guidance Association, 1964. 195 pp.

APPENDIX

FEDERAL WAY SCHOOL DISTRICT EMPLOYER'S REPORT

Student's Name _____ Date _____
 Employer's Name _____ Address _____
 Date Started _____ Time on Job _____
 Job Title _____ Supervisor _____

FACTORS	AVERAGE EMPLOYEE		
	Less Than	Same As	More Than
<u>Personality & Social Adjustment:</u>			
<u>Self-confidence</u>			
<u>Cooperates with supervisor</u>			
<u>Cooperates with other employees</u>			
<u>Respects supervisor</u>			
<u>Minds own business</u>			
<u>Accepts criticism</u>			
<u>Mixes socially with other employees</u>			
<u>Neat and clean</u>			
<u>Work Habits & Efficiency:</u>			
<u>On Time</u>			
<u>Careful with materials and property</u>			
<u>Completes work on time</u>			
<u>Quality of work</u>			
<u>Understands work</u>			
<u>Shows initiative</u>			

Would you be as willing to hire this individual as you would your average applicant, if a job were available?

Yes _____ Probably _____
 Probably not _____ No _____

If your answer is Probably Not or No, please answer the following:

Would hire IF _____
 (State conditions) _____

Please add on other side any additional comments that you feel would help give a clearer or more accurate description of this trainee.

PREVOCATIONAL PROGRAM
AUBURN HIGH SCHOOL

Employer's Report

Date _____ Student _____

	Excellent	Good	Fair	Not Satisfactory
<u>Ability to follow directions</u>				
<u>Ability to take correction</u>				
<u>Ability to sustain routine</u>				
<u>Ability to get along with co-workers</u>				
<u>Recognizes things to be done</u>				
<u>Interest in work</u>				
<u>Work finished on time</u>				
<u>Conduct</u>				
<u>Attitude</u>				
<u>Willingness to work steadily</u>				
<u>Ability to work unsupervised</u>				
<u>Cooperation during rush hours or under pressure</u>				
<u>Responsibility toward property and equipment</u>				
<u>Personal appearance</u>				

Are you satisfied with student's progress? _____

Would you be willing to hire this individual as you would your average applicant, if a job were available? Yes _____ Probably _____

Probably not _____ No _____

Your impression of this student's progress:

Additional Comment:

Name of firm or business

Name of Supervisor

Telephone Number